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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,624	07/19/2001	Sheng Li	03442P012	9984

7590 02/10/2004

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EXAMINER	
ABRAHAM, ESAW T	

ART UNIT	PAPER NUMBER
2133	3

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/909,624	LI, SHENG	
	Examin r	Art Unit	
	Esaw T Abraham	2133	

-- The MAILING DATE of this communication appears on th cov r she t with the correspondence addr ss --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims **1 to 24** are presented for examination.

Information Disclosure Statement

2. The examiner has been considered the references listed in the information disclosure statement submitted on 09/04/01 (see attached PTO-1449).

Claim Objections

3. Claim 1 objected to because of the following informalities:

a) Please add the phrase "the steps of " next or after ---A method comprising: --- Appropriate correction is required.

b) Please change the word "capable of" to "configured for" on line 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims **1 to 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson (U.S. PN: 6,609,224) in view of Kato (U.S. PN: 5,844,918).

As per claims **1, 9 and 17,** Jonsson substantially teach or disclose in figure 1 disclose a typical packet (10) conforming to the IP-based transport layer protocols, such as UDP (User Data gram Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header section (12) (including source port, destination port, length and checksum) and a payload section (14) (see col. 1, lines 24-47). Further, Jonnson teach that checksums are used by the UDP and RTP transport layer protocols to detect errors in a single data packet and such transport layer checksums are calculated to provide coverage for the entire data packet (e.g., header and payload), included in the transport layer header as one of the header fields (see in fig. 1 element 16) and calculation of the checksum is performed by adding together all the octets of data in the packet to be transmitted (see col. 2, lines 48-60). Furthermore, Jonnson teach that the checksum field occupies two octets in most cases and is used to verify the correctness of the transport layer packet and IP version 4 (IPv4) provides an option to disable the checksum (see col. 3, lines 24-30). Jonsson **does not explicitly** teach calculating data integrity (checksum function) for data segments to be transmitted within the data packet. **However**, Kato in figure 5 teach a segmentation circuit (14) divides a transmission data into a fixed length (see figure 5b), an error detecting code addition circuit (16) added an error detecting code (CRC) to the thus-divided data segments (see figure 5c), the header addition circuit (20) further appends a packet header to each data segment complete with the CRC code, whereby a transmission data packet is generated (see figure 5d and col. 5, lines 28-35). **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to combine (incorporate) the

teachings of Jonsson with the method of adding error correction codes (checksum or CRC codes) into independent segments as taught by Kato to provide a service option in which errors are detected separately. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because it would provide in achieving a reduction in power and resource consumption.

As per claims **2, 3, 10, 11, 18 and 19,** Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17 including Jonnson teach that checksums are used by the UDP and RTP transport layer protocols to detect errors in a single data packet and such transport layer checksums are calculated to provide coverage for the entire data packet (e.g., header and payload), included in the transport layer header as one of the header fields (see in fig. 1 element 16) and calculation of the checksum is performed by adding together all the octets of data in the packet to be transmitted (see col. 2, lines 48-60).

As per claims **4, 12 and 20,** Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17, including Jonsson teach that a speech data is presently transported over the Internet using IP-based transport layer protocols such as the (UDP) and (RTP) and wherein a software converts speech into digital data which is then assembled into data packets suitable for transport over the Internet using the IP-based transport layer protocols (see col. 1, lines 24-32).

As per claims **5, 13, and 21,** Jonsson in view of Kato teach all the subject matter claimed in claims 1 and 17 including Kato teach the digital transmission method defined as basic data is a video (audio) signal, and the basic data is transmitted in accordance with a TDMA/TDD method in the transmission step (see claim 4).

As per claims **6, 14 and 22,** Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17. Jonsson in view of Kato **do not explicitly** teach setting a checksum packet to zero. **However,** Jonsson teach that one of the checksum field occupies two octets in most cases and is used to verify the correctness of the transport layer packet and IP version 4 (IPv4) provides an option to disable the checksum (see col. 3, lines 24-30) which the system of Jonnson basically teach the option of disabling the checksum or setting the function of checksum to zero. **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to disable or set a checksum to zero in order to maximize the option of error detection process. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated in order to facilitate utilization of flexible and efficient error detecting/correcting operations.

As per claims **7, 8, 23 and 24,** Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17 including Jonsson teach a transport layer checksums are calculated to provide coverage for the entire data packet (e.g., header and payload) included in the transport layer header as one of the header fields (see figure 1, element 16) and the calculation of the checksum is performed by adding together all the octets of data in the packet to be transmitted which is also a similar process is repeated (recalculated) at the receiver side, and the two sums are then compared for a match, which means the data have been received correctly (see col. 2, lines 36-67). Further, Kato in figure 1 teach that the transmit/receive circuit (128) receives the data, an error correcting circuit (130) carries out an error correcting operation (see figure 3, step S13), and an error detecting circuit (132) carries out an error detecting operation using the CRC code (see fig. 3, step S12 and col. 2, lines 27-35).

As per claims **15 and 16,** Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17 including Jonsson substantially teach or disclose in figure 1 disclose a typical packet (10) conforming to the IP-based transport layer protocols, such as UDP (User Data gram Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header section (12) (including source port, destination port, length and checksum) and a payload section (14) (see col. 1, lines 24-47). Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17. Jonsson in view of Kato **do not explicitly** teach setting a checksum packet to zero. **However,** Jonsson teach that one of the checksum field occupies two octets in most cases and is used to verify the correctness of the transport layer packet and IP version 4 (IPv4) provides an option to disable the checksum (see col. 3, lines 24-30) which the system of Jonnson basically teach the option of disabling the checksum or setting the function of checksum to zero. **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to disable or set a checksum to zero to maximize the option of error detection process. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated in order to facilitate utilization of flexible and efficient error detecting/correcting operations.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US PN: 6,279,140 Slane

US PN: 5,701,316 Alferness et al.

US PN: 6,324,670 Henriksen

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (703) 305-7743. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Esaw Abraham

Esaw Abraham

Art unit: 2133

Albert DeCady
Primary Exam